

Seat No.: _____

THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA

DEPARTMENT OF COMPUTER APPLICATIONS

Program: Bachelor of Computer Applications

Semester-I End Semester Examination (Practical)

Date: 14-10-2019

Day: Monday

Duration: 10:15AM-11:15AM

BCA1112C04 Introduction to Programming using Python Lab

Marks: 40

Batch-C

INSTRUCTIONS:

1. Attempt all.
2. In the beginning of each file, write the program objective, name of programmer, date of program creation, programming language and version of program.
3. Name your variables appropriately.
4. Add comments whenever necessary. Functions should have doc string.

SET B

Q1.

10

Write a program which simulate magic 8 ball for Fortune telling. The Magic 8 Ball is a toy used for fortune-telling or seeking advice. The user asks a yes-or-no question to the large plastic ball, then turns it over to reveal a written answer which appears on the surface of the toy.

The 20 answers inside a standard Magic 8 Ball are

- It is certain.
- It is decidedly so.
- Without a doubt.
- Yes - definitely.
- You may rely on it.
- As I see it, yes.
- Most likely.
- Outlook good.
- Yes.
- Signs point to yes.
- Reply hazy, try again.
- Ask again later.
- Better not tell you now.
- Cannot predict now.
- Concentrate and ask again.
- Don't count on it.
- My reply is no.
- My sources say no.
- Outlook not so good.
- Very doubtful.

Hints:

import random module.

Take help about a function in random module which generates random numbers.

The Magic 8 Ball generates 20 answers consisting of values 1-20.

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Use indefinite loop.

Use if..elif..else to tell the fortune against all 20 answers.

Q2.

Write a module named `mathematical_mind` consisting of following functions:

`factorial(n)`

`prime(n)`

`evenodd(n)`

`bigsmall(a,b)` # A function that finds greater or smaller of two nos.

`divmodx(a,b)` # A function that returns normal division, integer division and remainder of arguments a and b.

Note: Write documentation string along with all the functions of the said module.

Perform the following tasks using your module.

- a) Generate the Web Documentation using Pydoc Module. 5
- b) Print the contents of your module. 5
- c) Use all the functions of the module `mathematical_mind` into your program and find the display the results. 10

Q3. 10

Write a function `ratPattern()` that prints a pattern as per the following condition:

If called without a parameter prints a right angle triangle of '*' just for five lines.

If called with a number n, it prints a right angle triangle of '*' for n lines.

If called with a character c and a number n ,it prints a right angle triangle of character c for n lines.
